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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/522,592

01/25/2005

Jean-Jacques Madjar

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1435

22852

7590

01/11/2008

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER  
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WASHINGTON, DC 20001-4413

EXAMINER

BHAT, NARAYAN KAMESHWAR

ART UNIT

PAPER NUMBER

1634

MAIL DATE

DELIVERY MODE

01/11/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/522,592	<b>Applicant(s)</b> MADJAR ET AL.	
	<b>Examiner</b> Narayan K. Bhat	<b>Art Unit</b> 1634	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-39 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                               | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                      | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 1-16 are drawn to an array, biochip, device and a kit for analyzing target nucleic acids.

Group II, claims 17-23 are drawn to a method for detecting target nucleic acids in a sample.

Group III, claim 24 is drawn to a method of using a biochip for determining the editing rate of an mRNA encoding a membrane receptor from a mammalian cell.

Group IV, claims 25-27, 34 and 38-39 are drawn to a method for selecting a compound capable of modulating the editing of an mRNA.

Group V, claims 28-33 are drawn to an SSCP method for obtaining an editing profile of an mRNA.

Group VI, claims 35 and 36 are drawn to a method for selecting a compound capable of preventing and treating in a patient.

Group VII, claim 37 is drawn to a method for diagnosing a disease associated with an mRNA editing

The inventions listed as Groups I to VII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Group I, claim 1 is drawn to an array of at least two different oligodeoxyribonucleotide probes, containing a sequence capable of forming a specific duplex with a target polynucleotide and said array comprises a set of distinct probes for detecting in a sample, the potential presence of any target oligonucleotide derived from an mRNA fragment encoding a membrane receptor from a mammalian cell and in that at least one of the nucleotides dG on at least one of said probes has been substituted with a nucleotide dI, such that the hybridization conditions are identical for each of said probes. The invention of group II claims 17-23 are drawn to a method of detecting targets in a sample, whereas the invention of group III, claim 24 is drawn to a method of using a biochip. The invention of group IV, claims 25-27, 34 and 38-39 are drawn to a method for selecting a compound capable of modulating the editing of an mRNA, whereas inventions of group VI and VII are drawn to compound capable of preventing and treating in a patient and diagnosing a disease associated with an mRNA editing respectively. The invention of group V claims 28-33 are drawn to a SSCP method.

The common technical feature as defined by Group I, linking groups I -VII is an array with distinct oligonucleotide probes capable of forming specific duplex with target, wherein the nucleotides dG in the probes are substituted with dI. However, the array

with the recited structural features is taught by McGall et al (USPN 6,156,501 issued Dec. 5, 2000), who teaches oligonucleotide analogue arrays attached to a solid substrates and further teaches target nucleic acids are bound to the arrays (see abstract). McGall et al also teaches the arrays detects the polymorphism in CFTR, a membrane receptor gene and p53 gene (column 14, lines 43-67) and further teaches an embodiment wherein, all guanosine residues in the array probes are substituted with deoxyinosine residues (column 24, lines 1-6). McGall et al also teaches that substitution of deoxyguanosine with the deoxyinosine does not alter significantly the hybridization conditions (Fig. 6, column 22, lines 19-33). Since McGall et al teaches all of the recited structural features of the array of the instant invention, the technical feature linking group I to VII does not constitute a special technical feature as defined by PCT Rule 13.2, because it does not define a contribution over the prior art. Thus, there is no special technical feature linking the recited groups, as would be necessary to fulfill the requirements for unity of invention.

#### ***Further Lack of Unity Requirement***

Each of the nucleotide probes in claim 10 is a unique molecule. There is no special feature that joins the differently claimed products or methods, which require different probes or group of probes.

\*\*\*\*\* If Applicant decides to elect the invention of group I for further prosecution, applicant is required to elect a particular combination of probes in claim 10. Applicants

are required to identify the Sequence ID Numbers of the elected sequences for search.

Claims that are dependent from claim 10 will be considered only with the elected probe.

\*\*\*\*\*

\*\*\*\*\*If Applicant decides to elect the invention of group V for further prosecution, the primer pair for PCR amplification is restricted to the primer pair recited in claim 32. \*\*\*\*\*

#### ***Notice of Possible Rejoinder***

The examiner has required restriction between product and process claims.

Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP

§ 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Applicant is advised that the reply to this requirement to be complete must include an election of invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Narayan K. Bhat whose telephone number is (571)-272-5540. The examiner can normally be reached on 8.30 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram R. Shukla can be reached on (571)-272-0735. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

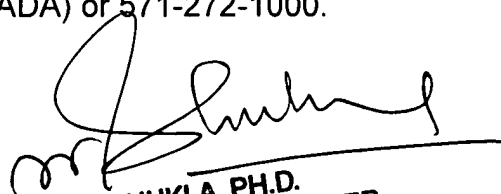
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Narayan K. Bhat, Ph. D.

Examiner

Art Unit 1634

  
RAM R. SHUKLA, PH.D.  
SUPERVISORY PATENT EXAMINER